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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/526,479	04/08/2005	Duncan McGregor	WFG-117-533	4224

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EXAMINER	
EPPS -SMITH, JANET L	
ART UNIT	PAPER NUMBER
1633	
MAIL DATE	DELIVERY MODE
01/13/2010	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/526,479	MCGREGOR ET AL.	
	Examiner	Art Unit	
	Janet L. Epps-Smith	1633	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *17 December 2009*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-10,20-25 and 27-44* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-10,20-25 and 27-44* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *12-17-09*
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after allowance or after an Office action under *Ex Parte Quayle*, 25 USPQ 74, 453 O.G. 213 (Comm'r Pat. 1935). Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, prosecution in this application has been reopened pursuant to 37 CFR 1.114. Applicant's submission filed on 12-17-2009 has been entered.

2. The indicated allowability of claims 1-10, 20-25, and 27-44 is withdrawn in view of the newly discovered reference(s) to Doi et al. Rejections based on the newly cited reference(s) follow.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 1-10, 20-25, and 27-44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Doi et al. (IDS filed 12-17-09) in view of Praszkier et al. (IDS filed 10-05-07).

Claim 1 is drawn to a method of producing an *in vitro* peptide expression library comprising a plurality of peptides, wherein each peptide is non-covalently bound to the

DNA construct encoding the peptide, comprising (a) providing a DNA construct comprising (i) a DNA target sequence; (ii) a DNA encoding a library member peptide and (iii) DNA encoding a peptide capable of non-covalently binding to said DNA target sequence of (a)(i); wherein said DNA construct and said peptide encoded by the DNA of (a)(iii) are selected to have cis-activity; and expressing in an acellular environment a plurality of DNA constructs according to (a), wherein said DNA constructs encode a plurality of library member peptides such that each expressed peptide is non-covalently bound to the DNA from which it was produced.

Doi et al. teach a method that permits the complete *in vitro* construction and selection of peptide or protein libraries using a stable linkage of the peptide to its encoding DNA. The method comprises wherein DNA is attached to the protein which it encodes through a stable linkage in a compartmentalized *in vitro* transcription/translation system. The method involves a cell-free translation reaction in reversed micelles. The streptavidin STA-biotin complex is used as a connector for the protein-DNA fusion. This method uses STA as a fusion partner to the random peptide library. A random peptide library is formed by fusing a degenerate oligonucleotide at the end of the STA gene in a biotinylated DNA fragment. The linkage between the biotinylated DNA and the encoded STA-fused peptide allow for a specific DNA to be enriched from a pool of random sequence DNA sequences based upon the properties of its encoded peptide.

Although the methods of Doi et al. involve the formation of a complex between biotinylated-DNA and the encoded streptavidin-peptide fusion, Doi et al. teach that

many other DNA-binding proteins could also be used as adapters for the protein-DNA linkage.

However, Doi et al. does not teach that the specific DNA-binding proteins and corresponding DNA target sequence includes the RepA and Rep Ori sequences, as encoded by SEQ ID NO:16 and SEQ ID NO:17.

Praszkier teaches DNA-binding interaction of RepA protein and its corresponding DNA-binding activity with ori and CIS elements of the Rep A gene (see abstract). He teaches that it is known in the art that the RepA protein interacts with its coding DNA (see introduction). Praszkier teaches that the RepA protein is capable of interacting the Cis elements from the IncI, IncF, IncB, IncK and IncL/M plasmids (see Table 1, figure 3 and page 2767 2nd column, last 2 paragraphs, though page 2768 first column). He further teaches that the Rep A proteins are very highly homologous, and direct sequence homology is not required for the Rep A protein to interact with the CIS element (see page 2767 2nd column, last 2 paragraphs, though page 2768 first column). He further states that the Rep A protein, CIS and ori sequences of the Rep A gene of the plasmid IncB, are highly homologous to the plasmid vectors IncFII R1 and R100 as disclosed in the art (page 2771, column I, last paragraph). The Rep A protein and *ori* as identified by SEQ ID NO: 16 and SEQ ID NO: 17 are encoded on the IncFII R1 plasmid (see page 6, lines 30-31 of the instant specification). Thus the Rep A protein and Ori from the R1 plasmid encodes SEQ ID NO: 16 and SEQ ID NO: 17.

Thus Praszkier discloses that the plasmids IncI, IncF, IncB, IncK and IncL/M plasmids, and Inc FII R1 and R100 are known in the art, and expresses highly

homologous Rep A proteins, and highly homologous CIS and Ori regions. He further teaches that the CIS and Ori regions of the various plasmids are capable direct interaction with the Rep A protein, and suggests all of the RepA proteins interact with the CIS and Ori regions in a similar manner, and that base pair specificity is not required for such interactions (page2770-2771, see entire discussion).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Janet L. Epps-Smith whose telephone number is 571-272-0757. The examiner can normally be reached on M-F, 10:00 AM through 6:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Woitach can be reached on 571-272-0739. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Janet L. Epps-Smith/
Primary Examiner, Art Unit 1633